



HAZARD IDENTIFICATION (AL-130)



Jim Withers

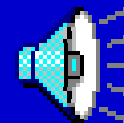
**Environment, Safety, Health &
Assurance**

G40 TASF

515/294-4743

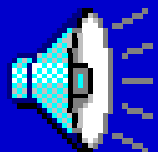
withers@ameslab.gov

Click on the icon for narration



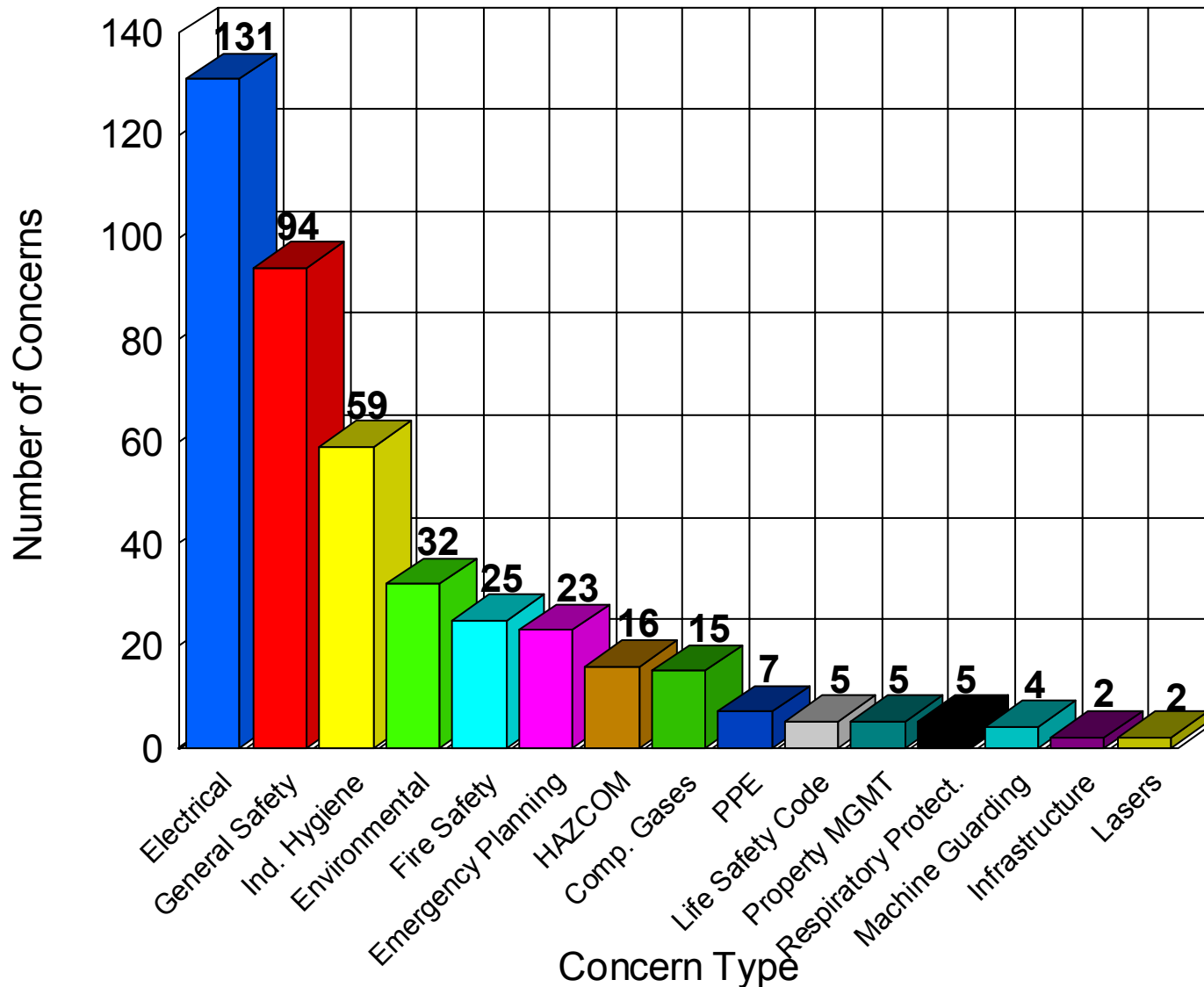
BACKGROUND

- **Safety Coordinator / Representative Program History**
- **Safety Coordinator & Representative Orientation**
- **5-year retrain - allows sharing of lessons learned information**
- **Independent Walk Through Findings**



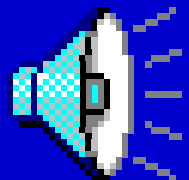
2001 TOP 15 Concerns

Independent Walk-Through Program

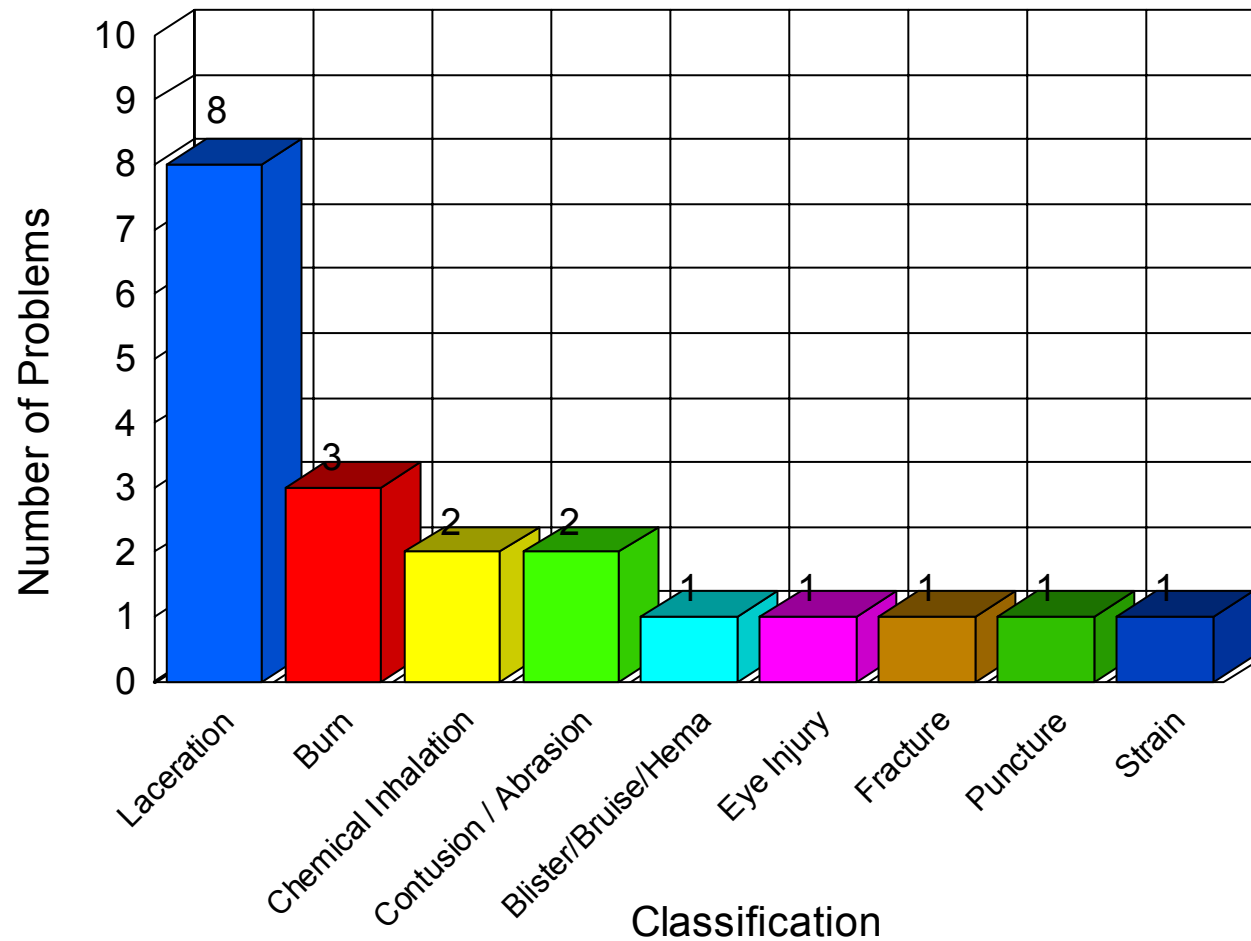


GOALS

- **Basic recognition of hazards in our facility**
- **Provide checklist tool**
- **Points of contact for each topical area**

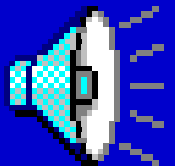


2001 Injuries & Illnesses



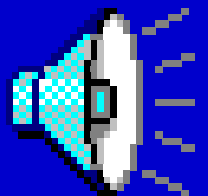
A COUPLE OF “GIVENS”....

- **Coordinators and Reps deal with different hazards, so....parts of course probably won't apply to you!**
- **Not all discussion points are “hazards”. Administrative issues mentioned too.**



INTEGRATED SAFETY MANAGEMENT.....

- **The foundation of our safety program**
- **Requires all employees to have a proactive, comprehensive safety attitude.....from planning of work through completion**
- **Video: “Safety Attitudes”**



TOPICAL AREAS

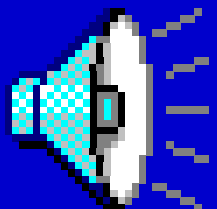
QUALITY ASSURANCE/TRAINING

GENERAL SAFETY

INDUSTRIAL HYGIENE

ENVIRONMENTAL PROTECTION

HEALTH PHYSICS

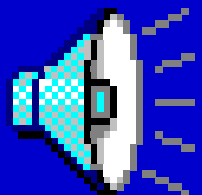


QUALITY ASSURANCE/TRAINING

Readiness Review



- New activities
- 5-year review of existing activities
- Activities occurring in Ames Laboratory space



GENERAL SAFETY

Overhead Storage



- **Storage devices >6 ft. must be secured**
- **Overhead storage >6 ft. allowed if items secured and device is meant for storage**
- **ESH&A - G.P. Jones**

INDUSTRIAL SAFETY

Personal Protective Equipment



- **Types of PPE: head to foot**
- **OSHA says: must be appropriate for hazard, user must be trained**
- **Applicable in both research environment and support functions**



GENERAL SAFETY

Housekeeping



- **OSHA: All work areas maintained neat and orderly**
- **Cleanliness is positively correlated with level of safety**
- **Frequent finding on Independent Walk Throughs**



GENERAL SAFETY

Egress/Emergency Access

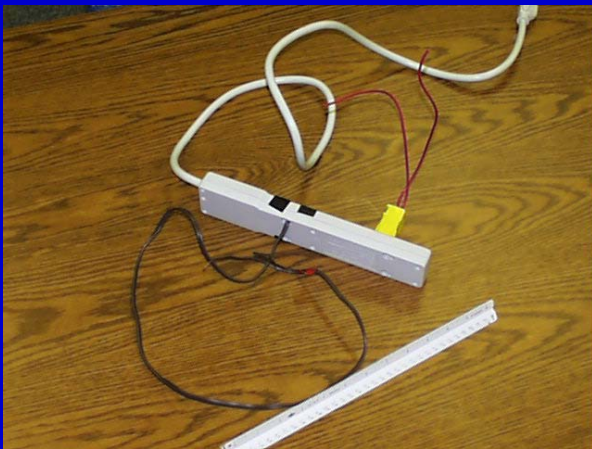
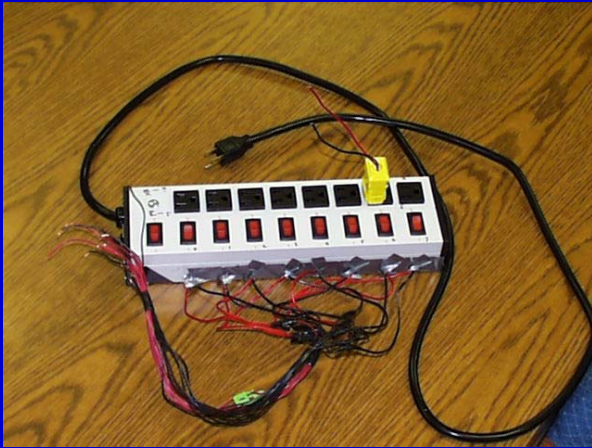


- 36"- all exit routes
- Keep exit routes clear
- Access to fire extinguishers, electrical disconnects



GENERAL SAFETY

Electrical Safety - Appropriate use of equipment



- **Outlet panels versus permanent service**
- **Alterations invalidate UL-listing**
- **Equipment/wiring must meet specifications**
- **Mandatory training modules for electrical work**

GENERAL SAFETY

Electrical Safety - Frayed cords



- **Check condition of cords regularly**
- **Replace frayed cords - extension cords**
- **Non-conductive, strain relief devices**
- **Consultations available from Engineering Services (John Hjortshoj: 4-7907)**

GENERAL SAFETY

Fire Safety - Equipment left on



- **Coffee pots, soldering irons**
- **Fire hazard when near combustible items**
- **Common finding on PPS tours at night**

GENERAL SAFETY

Walking Surfaces - Slips, Trips, Falls



- **Stairs, hallways, sidewalks**
- **Significant number of employee injuries from slips/trips/falls**
- **Most hazardous conditions can be corrected**
- **Contact ESH&A or FS**

GENERAL SAFETY

Facility Conditions - Asbestos



- **Pipes, transite in hoods, floor tiles**
- **Report any loose (friable) material to ESH&A or FS**
- **Remediation techniques: removal, encapsulation**

GENERAL SAFETY

Ergonomics



- **Repetitive motions, Carpal Tunnel Syndrome, back injuries**
- **Training courses**
- **Ergonomic consultations from Occupational Medicine and Industrial Hygiene**

INDUSTRIAL HYGIENE

Chemical Hygiene



- **Remove PPE before exiting laboratory/using public facilities**
- **Practice good hygiene - hand washing, etc.**
- **Food/beverage consumption in designated areas**

INDUSTRIAL HYGIENE

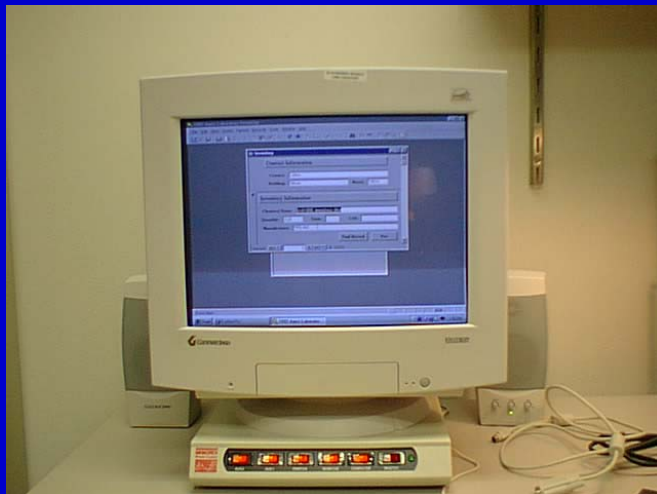
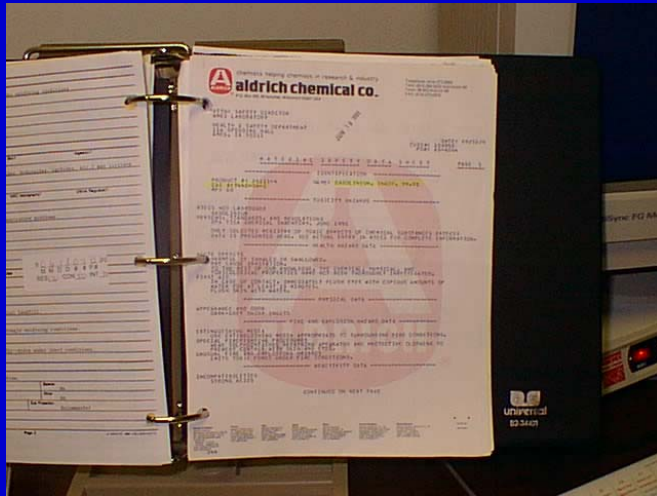
Chemical Management - Cylinders



- **Appropriately secured**
- **Regulators/manifolds appropriate for gas**
- **Acutely toxics in ventilated enclosures**
- **Activity-specific training plus “Cylinder Safety”**
- **In compliance with “Cylinder Safety Guidelines”**

INDUSTRIAL HYGIENE

Chemical Management



- **MSDSs required for all hazardous chemicals - ESH&A resources**
- **Users familiar with basic ES&H info for chemicals they use**
- **Inventories current and submitted to ESH&A on an annual basis**
- **Procedures current and training documented**

INDUSTRIAL HYGIENE

Chemical Management - Engineering Controls



- **Use chemical hoods whenever possible**
- **Required for acutely toxics, carcinogens, low-odor threshold chemicals**
- **Ensure proper usage - sash height correct**
- **Ensure testing within past year**

ENVIRONMENTAL PROTECTION

Waste Management



- **EPA scrutinizing college campuses**
- **Waste labels not filled out**
- **Waste not picked up within required time frame**
- **Waste containers not capped**

HEALTH PHYSICS

Radiation Safety - Lasers



- Ensure interlock devices functioning (required for Class IV units)
- Users receive training, eye exams (including exit)
- Consultations - Lee Harker, Engineering Services



HEALTH PHYSICS

Radiological Material Storage



- **Labeling and signage appropriate**
- **Users receive Rad Worker II training**
- **Consultations – Jay Beckel, Ken Ewing**

HEALTH PHYSICS

Dosimetry



- **Badges, rings worn by users to measure dosages**
- **Turn in badges when requested including termination**
- **Consultations – Jay Beckel, Ken Ewing**

CHECKLIST

- **Organized by topical areas - amended ISU Chemical Hygiene Plan form**
- **Intended for group-level walkthroughs by Group Leaders, Safety Representatives, Safety Coordinators**
- **Amenable to customization for a specific area**
- **Make appointment with ESH&A to amend checklist for your area**

Thanks for attending!

Web addresses:

Ames Laboratory:

<http://www.external.ameslab.gov/esha/training.html>

Iowa State University:

<http://www.ehs.iastate.edu/training.htm>